

INTERNET SERVICE PROVIDERS IN THE ITHACA AREA

The Ithaca area has four major Internet service providers (ISPs) that can get you online, so that you can peruse the Cornell library catalogue, read your e-mail or surf the web. The major ISPs in the vicinity are:

Clarity Connect

<http://www.clarityconnect.com>
(607)257-8268

Type of connection: dialup, high-speed ISDN and DSL connections through dedicated lines.

Equipment: Dialup service will use modems; other services will require an Ethernet card in your computer.

LightLink

<http://www.lightlink.com>, docdoo@lightlink
(607) 272-2872

Type of connection: dialup, high-speed ISDN, DSL and T1 connections through dedicated lines.

Equipment: Dialup service will use modems; other services will require an Ethernet card in your computer.

Road Runner

<http://www.twcny.rr.com>, info@twcny.rr.com
1-877-313-BEEP (2337)

Type of connection: cable.

Equipment: Cable connections require an Ethernet card in your computer.

Telergy light.speed

<http://www.l-speed.com>
1-800-889-6716

Type of connection: high-speed ADSL connection through normal phone lines.

Equipment: An ADSL connection will require an Ethernet card in your computer.

These are only a few of the ISPs in the Ithaca area, for more vendors, check the Yellow Pages.

Guidelines

If you decide, as a house, to make Internet access widely available, you will most likely require some re-wiring of your house. The following are some guidelines that vendors should follow in order to ensure that your building is safely and efficiently wired:

- ▶ Category 5 wire should be used; it is the industry standard, and will allow you a more robust network, and facilitate any future expansion.
- ▶ All communications wiring should conform to the Building Industry Consulting Service's (BICSI) nationally recognized telecommunications standards for multi-resident buildings.
- ▶ Wiring must conform to NEC (National Electrical Code) standards with regard to grounding and bonding.
- ▶ An enclosure system should be used to protect wiring. Enclosures will protect wiring from rodents and other elements that might cause harm to the cables.
- ▶ All City of Ithaca fire, electrical and building codes should be followed during installation with particular attention being paid to fire stopping.
- ▶ Testing (including testing for shorts, grounds, discontinuities, and polarity reversals) should be conducted and documented by the contractor.
- ▶ "As-built" drawings of the finished project should be provided upon completion of the work.
- ▶ Work should be completed in a neat, orderly and timely manner.
- ▶ For your convenience, the system should be set up so that services can be turned on and off with minimal intrusion into your living areas.
- ▶ Installing data wiring in your cooperative house provides an opportunity to install telephone lines in the same areas. Construction is usually the most expensive part of a new service, so you will save significantly by having these installations done at the same time. If you don't want to use the phone lines immediately, you can leave them inactive, but if you decide at a later date that you would like phones in that area, you will only have to activate the line.

CONNECTIVITY OPTIONS FOR COOPERATIVE HOUSES

For more information

To find out more about:

- The technologies and connectivity options discussed in this guide, visit <http://www.cit.cornell.edu/computer/connect/coop/>
- EZ Remote: <http://www.cit.cornell.edu/ezremote/>
- Connecting to Cornell from an ISP, *Cornell's Network Services: Access without Bear Access*, or visit <http://www.cit.cornell.edu/computer/connect/noba/>

If you have other questions, please contact Billie Dodge, bsg1@cornell.edu, (607) 255-9854.

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Cornell University and Cornell Information Technologies (CIT) are committed to ensuring that students residing in cooperative houses are able to fully access Cornell technology services.

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CONNECTING FROM YOUR COOPERATIVE HOUSE

Determining the appropriate connection strategy for your cooperative house can seem complicated, however, it begins with the process of clearly establishing the goals of your house.

For example, the house will need to decide how widely available Internet access should be. Should every resident be able to connect to the Internet through a data outlet in his or her room? Or will the Internet be accessed from a central location, such as a designated study area? Should individual members be responsible for making their own Internet access arrangements?

The answers to these questions will determine what you need to do.

- If the house decides that individual members should be responsible for their own Internet connection, each member will need to contact one of the Internet service providers (ISPs) listed in the section *Internet Service Providers in the Ithaca Area*, and make their own arrangements with them.
- If the goal of the house is to have a data outlet in every room or outlets clustered in a central location such as a designated study area, you will need to have a data network installed in your house. This process is complex and you may want to have a needs assessment conducted to help you assess your options and the costs involved.

You've decided you'd like to connect as a house, now what?

Cornell Information Technologies (CIT) will conduct the needs assessment.

To begin the process, contact Billie Dodge, bsg1@cornell.edu, (607)255-9854.

How are you going to connect?

Install a network in your house

Your options include:

- cable
- DSL (and its variations)
- ISDN
- T1
- Wireless

Conduct a needs assessment to determine the best option for your house.

Based on needs assessment, cost, other resources, decide on how to configure your local area network (LAN), and how to connect your LAN to the Internet.

Contact an ISP to begin the process of establishing an Internet connection for your house.

Connect as an individual

Options for individuals include:

- dialup
- cable
- DSL
- ISDN

Contact ISPs for connection information and rates.

Select an ISP and follow their instructions to access the Internet.

Once you have established an Internet connection, refer to the guide, *Cornell's Network Services: Access without Bear Access*, or visit <http://www.cit.cornell.edu/computer/connect/noba/>

Types of Connections

Before you make these decisions, you'll need to know what kinds of options are available. Technology is developing rapidly and methods for connecting to the Internet change almost daily. In the Ithaca area, the following types of connections are most commonly available:

Cable – a cable data connection transfers information from the Internet to your computer and from your computer to the network, through your cable television connection. Cable connections provide high speeds of data transfer downstream, from the Internet to your computer, but are slower when sending data from your computer to the network. Additionally, transfer rates are affected by the number of subscribers online simultaneously. All connections originate on one line per street, so signals degrade as more subscribers come online. Cable connections can be used by individual subscribers to connect one computer to one line, or can be used to connect multiple computers in a building to the Internet.

Dialup – data is transmitted through an analog phone connection. You connect to the Internet by using your phone line to dial into an ISP's line. An analog connection is the slowest type of connection available, and will not permit you to use your telephone for a voice connection at the same time that you are connected to the Internet. Dialup connections allow only one computer at a time, per line, to be connected. Cornell offers a dialup service, for more information see the EZ-Remote box on the next page.

DSL (Digital Subscriber Line) – DSL and its variations (such as ADSL*), use normal phone lines to transmit and receive data digitally. Unlike a cable connection, DSL allows you exclusive use of the line – there is no signal degradation caused by other users. Like cable connections, DSL offers high-speed connectivity, and allows you to use your phone and be online at the same time. DSL can be used for individuals who want to connect one computer to one line, or for an extra investment DSL can be used to connect a building to the Internet.

ISDN (Integrated Services Digital Network) – ISDN is a slightly older technology that also provides a high-speed connection. ISDN offers connections over ordinary telephone wire, facilitating both voice and data transmission so you can maintain your connection to the Internet while placing telephone calls. ISDN can be used for individuals who need to connect one computer to one line, or can be used to connect multiple computers in a building to the Internet.

T1 – is a digital transmission technology that uses copper wire. T1 could be used to provide data service to an entire building, and data wiring would distribute the service throughout the building. T1 is the technology used on the Cornell campus. A T1 connection requires a substantial investment and because of this, may not be the most desirable means of connecting your house.

Wireless - is a high-speed technology that transmits data over radio waves. Wireless transmission can be used to provide connectivity from an ISP to an entire building, however, service will be dependent on the existence of a clear line of sight between the ISP and the building. Within a building, a wireless local area network (LAN) can connect multiple computers to each other and to the Internet. Wireless technology is continually developing, to find out more about wireless options, visit <http://www.cit.cornell.edu/computer/connect/coop/>.

EZ-Remote

If individual members need to make their own Internet access arrangements, another option available to them is EZ-Remote.

EZ-Remote is a dialup service offered by Cornell. For a flat monthly fee, you can have unlimited access to the Internet through Cornell's network.

For more information visit <http://www.cit.cornell.edu/ezremote/>

*Asymmetric Digital Subscriber Line